



Page 1 of 1

PTO-1449 Information Disclosure Citation in an Application	Application No. 09/719,591	Applicant(s) Mohammed N. Islam et al.
Docket Number 069204.0163	Group Art Unit 2633	Filing Date December 12, 2000

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	5,831,754	11/03/1998	Nakano	359	161	05/01/1995
B						
C						
D						
E						
F						
G						
H						
I						
J						

RECEIVED

MAY 06 2003

Technology Center 2600

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES
M						NO

NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
N	E.M. Dianov, "Raman fiber amplifiers," Fiber Optics Research Center at the General Physics Institute of the Russian Academy of Sciences, Moscow, Russia, 5 pages	© 1999
O	A.K. Srivastava, et al., "System Margin Enhancement with Raman Gain in Multi-Span WDM Transmission," Technical Digest, OFC '99, 3 pages.	Friday 2/26/1999
P	PCT, Written Opinion, International Preliminary Examining Authority," 6 pages.	10 Mar 2003
Q		
R		
S		
T		
U		
V		

EXAMINER <i>Audrea Hughes</i>	DATE CONSIDERED <i>Aug 2, 2004</i>
EXAMINER Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.	



PTO-9449 Information Disclosure Citation in an Application	Application No. 09/719,591	Applicant(s) Mohammed N. Islam et al.
	Docket Number 069204.0163	Group Art Unit Filing Date
		December 12, 2000

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	6,147,794	11/14/2000	Stentz	359	334	02/04/1999
B						
C						
D						
E						RECEIVED
F						FEB 03 2004
G						Technology Center 2600
H						
I						
J						
K						
L						
M						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
N							
O							
P							

NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
Q	S.A.E. Lewis, et al., "1.4W saturated output power from a fibre Raman amplifier," OFC., 3 pages	OFC. 1999
R	PCT Notification of Transmittal of the International Search Report or the Declaration, 5 pages	01/21/2003
S	RECEIVED	
T	FEB 17 2004	
U	GROUP 3600	
V		

EXAMINER <i>Deuncle Hughes</i>	DATE CONSIDERED <i>Aug 2, 2004</i>
-----------------------------------	---------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

PTO-1449 Information Disclosure Citation In an Application	Application No.	Applicant(s)	
	09/719,591	Mohammed N. Islam, et al.	
	Docket Number 069204.0163	Group Art Unit 2633	Filing Date December 12, 2000

NOV 13 2002

U.S. PATENT DOCUMENTS

DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
6,219,376 B1	4-17-2001	Terahara	359	341	7-21-1998
B 6,263,139 B1	7-17-2001	Kawakami et al.	385	123	11-9-1999
C 6,356,383 B1	3-12-2002	Cornwell, Jr. et al.	359	334	3-31-2000
D 6,404,964 B1	6-11-2002	Bhagavatula et al.	385	123	4-14-1999
E 6,414,786 B1	7-2-2002	Foursa	359	334	3-27-2000
F 6,417,959 B1	7-9-2002	Bolshtyansky et al.	359	334	2-1-2001
G 6,437,906 B1	8-20-2002	Di Pasquale et al.	359	337.2	11-22-2000
H 2002/0001123 A1	1-3-2002	Miyakawa et al.	359	334	6-21-2001
I					
J					
K					
L					
M					NOV 18 2002
N					Technology Center 2600
O					

RECEIVED

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
P	1 180 860 A1	19.02.2001	EP	H04B	10/17	X	
Q							
R							
S							

DOCUMENT (Including Author, Title, Source, and Pertinent Pages)

DATE

T	Hiroji Masuda and Shingo Kawai, Ultra Wide-Band Raman Amplification With A Total Gain-Bandwidth of 132 nm Of Two Gain-Bands Around 1.5 μm, ECOC '99, Nice, France, pp. II-146 – II-147.	26-30 September 1999
U	Sugizaki, et al., Slope Compensating DCF for S-band Raman Amplifier, OSA TOPS Vol. 60, Optical Amplifiers and Their Applications, Nigel Jolley, John D. Minelly, and Yoshiaki Nakano, eds., 2001 Optical Society of America, pp. 49-53.	2001
V	Vasilyev, et al., Pump intensity noise and ASE spectrum of Raman amplification in non-zero dispersion-shifted fibers, reprinted from the Optical Amplifiers and Their Applications Conference, 2001 Technical Digest, 2001 Optical Society of America, pp. 57-59.	2001
W		
X		

EXAMINER

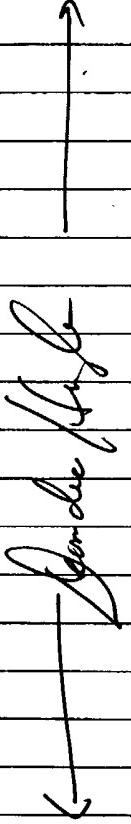
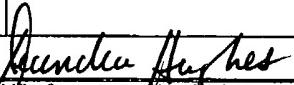
Deborah M. HUGHES

DATE CONSIDERED

Aug 2, 2004

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE CITATION PTO-1449 		ATTY. DOCKET NO. 20434-736		SERIAL NO. 09/719,591		
		APPLICANT Islam				
		FILING DATE 12/12/00		GROUP Not Assigned		
		U.S. PATENT DOCUMENTS				
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	4,063,106	12/113/77	Ashkin et al.	307	88.3	
	4,685,107	8/4/87	Kafka et al.	372	6	
	4,740,974	4/26/88	Byron	372	3	
	5,039,199	8/13/91	Mollenauer et al.	359	334	
	5,050,183	9/17/91	Duling, III	372	94	
	5,058,974	10/22/91	Mollenauer	385	27	
	5,117,196	5/26/92	Epworth et al.	359	333	
	5,132,976	7/21/92	Chung et al.	372	6	
	5,134,620	7/28/92	Huber	372	6	
	5,191,586	3/2/93	Huber	372	6	
	5,191,628	3/2/93	Byron	385	27	
	5,218,655	6/8/93	Mizrahi	385	39	
	5,268,910	12/7/93	Huber	372	6	
	5,295,016	3/15/94	Van Deventer	359	347	
	5,323,404	6/21/94	Grubb	372	6	
5,359,612	10/25/94	Dennis et al.	372	18		
	5,450,427	9/12/95	Fermann et al.	372	18	
FOREIGN PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES
						<input type="checkbox"/> <input type="checkbox"/>
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
EXAMINER			DATE CONSIDERED	Aug 2, 2004		

EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1441 	ATTY. DOCKET NO. 20434-736	SERIAL NO. 09/719,591
	APPLICANT Islam	
	FILING DATE 12/12/00	GROUP Not Assigned

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,473,622	12/5/95	Grubb	372	6	
	5,477,555	12/19/95	Debeau et al.	372	25	
	5,479,291	12/26/95	Smith et al.	359	333	
	5,485,481	1/16/96	Ventrudo et al.	372	6	
	5,497,386	3/5/96	Fontana	372	18	
	5,504,771	4/2/96	Vahala et al.	372	94	
	5,513,194	4/30/96	Froberg et al.	372	6	
<i>Bunchie Hughes</i>	5,521,738	5/28/96	Froberg	359	184	
	5,530,710	6/25/96	Grubb	372	6	
	5,541,947	7/30/96	Mourou et al.	372	25	
	5,542,011	7/30/96	Robinson	385	24	
	5,577,057	11/19/96	Frisken	372	18	
	5,617,434	4/1/97	Tamura et al.	372	6	
	5,623,508	4/22/97	Grubb et al.	372	3	
	5,659,559	8/19/97	Ventrudo et al.	372	6	
	5,673,281	9/30/97	Byer	372	3	
	5,734,665	3/31/98	Jeon et al.	372	6	

FOREIGN PATENT DOCUMENTS

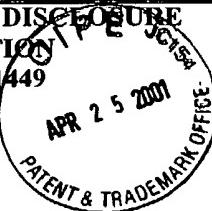
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
						<input type="checkbox"/>	<input type="checkbox"/>

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER <i>Bunchie Hughes</i>	DATE CONSIDERED <i>Aug 2, 2004</i>		

EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SHEET 3 OF 9

INFORMATION DISCLOSURE CITATION PTO-1449 	ATTY. DOCKET NO.	SERIAL NO.
	20434-736	09/719,591
	APPLICANT Islam	
	FILING DATE 12/12/00	GROUP Not Assigned

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
↑ <i>Audrea Hughes</i>	5,757,541	5/26/98	Fidric	359	341	
	5,838,700	11/17/98	Dianov et al.	372	6	
	5,841,797	11/24/98	Ventrudo et al.	372	6	
	5,847,862	12/8/98	Chraplyvy et al.	359	337	
	5,861,981	1/19/99	Jabr	359	341	
	5,880,866	3/9/99	Stolen	359	138	
	5,883,736	3/16/99	Oshima et al.	359	341	
	5,887,093	3/23/99	Hansen et al.	385	27	
↓ <i>Audrea Hughes</i>	5,920,423	7/6/99	Grubb et al.	359	341	
	5,768,012	6/16/98	Zanoni et al.	359	341	
	5,673,280	9/30/97	Grubb et al.	372	3	
	5,659,644	8/19/97	DiGiovanni et al.	385	31	
	5,389,779	2/14/95	Betzig et al.	250	216	
	5,323,404	6/21/94	Grubb	372	6	
	5,226,049	7/6/93	Grubb	372	6	
	5,225,925	7/6/93	Grubb et al.	359	341	
	5,825,520	10/20/98	Huber	359	130	

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
						<input type="checkbox"/>	<input type="checkbox"/>

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	<i>Audrea Hughes</i>	DATE CONSIDERED	<i>Aug 2, 2004</i>
----------	----------------------	-----------------	--------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION NO. PTO-1449		ATTY. DOCKET NO. 20434-736	SERIAL NO. 09/719,591
		APR 25 2001 PATENT & TRADEMARK OFFICE	
		APPLICANT Islam	
		FILING DATE 12/12/00	GROUP Not Assigned

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,825,520	10/20/98	Huber	359	130	
	5,798,855	8/25/98	Alexander et al.	359	177	
	5,726,784	3/10/98	Alexander et al.	359	125	
	5,701,186	12/23/97	Huber	359	125	
	5,659,351	8/19/97	Huber	348	7	
	5,600,473	2/4/97	Huber	359	179	
	5,579,143	11/26/96	Huber	359	130	
	5,557,442	9/17/96	Huber	359	179	
	5,555,118	9/10/96	Huber	359	125	
	5,532,864	7/2/96	Alexander et al.	359	177	
	5,504,609	4/2/96	Alexander et al.	359	125	
	5,467,212	11/14/95	Huber	359	168	
	5,416,629	5/16/95	Huber	359	182	
	5,400,166	3/21/95	Huber	359	173	
	5,373,389	12/13/94	Huber	359	195	
	5,331,449	7/19/94	Huber et al.	359	125	
	5,321,707	6/14/94	Huber	372	6	

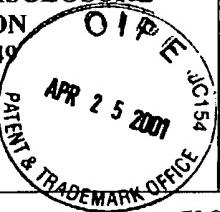
FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
						<input type="checkbox"/>	<input type="checkbox"/>

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	Audrey Hughes	DATE CONSIDERED	Aug 2, 2004
----------	---------------	-----------------	-------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449		ATTY. DOCKET NO. 20434-736	SERIAL NO. 09/719,591
		APPLICANT Islam	
		FILING DATE 12/12/00	GROUP Not Assigned

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,321,543	6/14/94	Huber	359	187	
	5,301,054	4/5/94	Huber et al.	359	132	
	5,295,209	3/15/94	Huber	385	37	
	5,293,545	3/8/94	Huber	359	111	
	5,283,686	2/1/94	Huber	359	337	
	5,271,024	12/14/93	Huber	372	6	
	5,257,124	10/26/93	Glaab et al.	359	124	
	5,243,609	9/7/93	Huber	372	9	
	5,222,089	6/22/93	Huber	372	6	
	5,212,579	5/18/93	Huber et al.	359	182	
	5,210,631	5/11/93	Huber et al.	359	132	
	5,208,819	5/4/93	Huber	372	32	
	5,200,964	4/6/93	Huber	372	26	
	5,187,760	2/16/93	Huber	385	37	
	5,166,821	11/24/92	Huber	359	238	
	5,159,601	10/27/92	Huber	372	6	
	5,153,762	10/6/92	Huber	359	125	

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
						<input type="checkbox"/>	<input type="checkbox"/>

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	<i>Audrea Hughes</i>	DATE CONSIDERED	<i>Aug. 2, 2004</i>
----------	----------------------	-----------------	---------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION NO ^{TE} PTO-1449		ATTY. DOCKET NO. 20434-736	SERIAL NO. 09/719,591
		APR 25 2001 PATENT & TRADEMARK OFFICE JC15A	
		APPLICANT Islam	
		FILING DATE 12/12/00	GROUP Not Assigned

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
<i>James L. Huber</i>	5,151,908	9/29/92	Huber	372	6	
	5,140,456	8/18/92	Huber	359	341	
	5,268,910	12/7/93	Huber	372	6	
	5,107,360	4/21/92	Huber	359	124	
	4,831,616	5/16/89	Huber	370	3	

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
						<input type="checkbox"/>	<input type="checkbox"/>

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<input checked="" type="checkbox"/>	Sun, Y. et al., "80nm Ultra-Wideband Erbium-Doped Silicia Fibre Amplifier" ELECTRONICS LETTERS, November 6, 1997, Vol. 33, No. 23, pp. 1965-1967
<input checked="" type="checkbox"/>	Wysocki, P.F. et al., "Broad-Band Erbium-Doped Fiber Amplifier Flattened Beyond 40nm Using Long-Period Grating Filter", IEEE PHOTONICS, Vol. 9, No. 10, October 10, 1997, pp. 1343-1345
<input checked="" type="checkbox"/>	Liaw, S-K et al., "Passive Gain-Equilized Wide-Band Erbium-Doped Fiber Amplifier Using Samarium-Doped Fiber", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 8, No. 7, July 7, 1996, pp. 879-881
<input checked="" type="checkbox"/>	Yamada, M. et al., "A Low-Noise and Gain-Flattened Amplifier Composed of a Silica-Based and a Fluoride-Based Er3+-Doped Fiber Amplifier in a Cascade Configuration", IEEE PHOTONICS LETTERS, Vol. 8, No. 5, May 1996, pp. 620-622
<input checked="" type="checkbox"/>	Ma, M.X. et al., "240-km Repeater Spacing in a 5280-km WDM System Experiment Using 8x2.5 Gb/s NRZ Transmission", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 10, No. 6, June 1998, pp. 893-895
<input checked="" type="checkbox"/>	Masuda, H. et al., "Ultrawide 75-nm 3-dB Gain-Band Optical Amplification with Erbium-Doped Fluoride Fiber Amplifiers and Distributed Raman Amplifiers", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 10, No. 4, April 1998, pp. 516-518

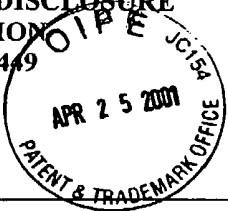
EXAMINER

James L. Huber

DATE CONSIDERED

Aug 2, 2004

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449 		ATTY. DOCKET NO.		SERIAL NO.		
		20434-736		09/719,591		
		APPLICANT Islam				
		FILING DATE 12/12/00		GROUP Not Assigned		
U.S. PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
FOREIGN PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES
						<input type="checkbox"/> <input type="checkbox"/>
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
✓	Masuda, H. et al., "Wide-Band and Gain Flattened Hybrid Fiber Amplifier Consisting of an EDFA and a Multiwavelength Pumped Raman Amplifier", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 11, No.6, June 1999, pp. 647-649					
✓	Kawaii, S. et al., "Ultra-Wide, 75nm 3dB Gain-Band Optical Amplifier Utilising Gain-Flattened Erbium-Doped Fluoride Fibre Amplifier and Discrete Raman Amplification", ELECTRONIC LETTERS, Vol. 34, No. 9, April 30, 1998, pp. 897-898					
✓	Kawai, S. et al., "Ultrawide, 75nm 3dB Gain-Band Optical Amplifier Utilizing Erbium-Doped Fluoride Fiber and Raman Fiber", OFC TECHNICAL DIGEST, 1998					
✓	Kidorf, H. et al., "Pump Interactions in a 100-nm Bandwidth Raman Amplifier", IEEE ELECTRONICS TECHNOLOGY LETTERS, Vol. 11, No. 5, May 1999, pp.530-532					
✓	Ono, H. et al., "Gain-Flattened Er3+-Doped Fiber Amplifier for a WDM Signal in the 1.57-1.60- μ m Wavelength Region", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 9, No. 5, May 1997, pp.596-598					
✓	Hansen, P.B. et al., "529km Unrepeated Transmission at 2.488 Gbit/s Using Dispersion Compensation, Forward Error Correction, and Remote Post-and Pre-amplifiers Pumped By Diode-Pumped Raman Lasers", IEEE ELECTRONICS LETTERS ONLINE NO. 19951043, July 7, 1998					
✓	Guy, M.J. et al., "Lossless Transmission of 2ps Pulses Over 45km of Standard Fibre at 1.3 μ m Using Distributed Raman Amplification", ELECTRONICS LETTERS, Vol. 34, No.8, April 6, 1998, pp. 793-794					
✓	Dianov, E.M. et al., "Highly Efficient 1.3 μ m Raman Fibre amplifier", ELECTRONICS LETTERS, Vol. 34, No. 7, April 2, 1998, pp. 669-670					
✓	Chernikov, S.V. et al., "Raman Fibre Laser Operating at 1.24 μ m", ELECTRONICS LETTERS, Vol. 34, No.7, April 2, 1998, pp. 680-681					
EXAMINER	<i>Deborah Hayes</i>		DATE CONSIDERED		<i>Aug 2, 2004</i>	

EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SHEET 8 OF 9

INFORMATION DISCLOSURE CITATION PTO-1449		ATTY. DOCKET NO. 20434-736	SERIAL NO. 09/719,591
		APR 25 2001 PATENT & TRADEMARK OFFICE U.S. GOVERNMENT	APPLICANT Islam
		FILING DATE 12/12/00	GROUP Not Assigned

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
						<input type="checkbox"/>	<input type="checkbox"/>

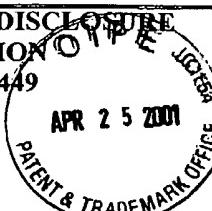
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

✓	Liaw, S-K et al., "Passive Gain-Equilized Wide-Band Erbium-Doped Fiber Amplifier Using Samarium-Doped Fiber", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 8, No. 7, July 1996, pp. 879-881
✓	Masuda, M. et al., "Wideband, Gain-Flattened, Erbium-Doped Fibre Amplifiers with 3dB Bandwidths of >50nm", ELECTRONICS LETTERS, Vol. 33, No. 12, June 5, 1997, pp. 1070-1072
✓	Yang, F.S. et al., "Demonstration of Two-Pump Fibre Optical Parametric Amplification", ELECTRONICS LETTERS, Vol. 33, No. 21, October 9, 1997, pp. 1812-1813
✓	Kawai, S. et al., "Wide-Bandwidth and Long-Distance WDM Transmission Using Highly Gain-Flattened Hybrid Amplifier", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 11, No. 7, July 1999, pp. 886-888
✓	Paschotta, R. et al., "Ytterbium-Doped Fiber Amplifiers", IEEE JOURNAL OF QUANTUM ELECTRONICS, Vol. 33, No. 7, July 1997, pp. 1049-1056
✓	Chernikov, S.V. et al., "Raman Fibre Laser Operating at 1.24 μm" ELECTRONICS LETTERS, Vol. 34, No. 7, April 2, 1998, pp. 680-681
✓	Grubb, S.G. et al., "Fiber Raman Lasers Emit at Many Wavelengths", LASER FOCUS WORLD, February 1996, pp. 127-134
✓	Mollenauer, L.F. et al., "Dispersion-Managed Solitons for Terrestrial Transmission", OPTICAL SOCIETY OF AMERICA, 1999
✓	Hansen, S. L. et al., "Gain Limit in Erbium-Doped Fiber Amplifiers Due to Internal Rayleigh Backscattering", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 4, No.6, June 1992, pp. 559-561
✓	Spirit, D.M. et al., "Systems Aspects of Raman Fibre Amplifiers", OPTICAL AMPLIFIERS FOR COMMUNICATION, Vol. 137, Pt. J, No. 4, August 1990, pp. 221-224
✓	Mollenauer, L.F. et al., "Soliton Propagation in Long Fibers with Periodically Compensated Loss", IEEE JOURNAL OF QUANTUM ELECTRONICS, Vol. QE-22, No. 1, January 1986, pp. 157-173

EXAMINER <i>Leanne Hayes</i>	DATE CONSIDERED <i>Aug 2, 2001</i>
------------------------------	------------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SHEET 9 OF 9

INFORMATION DISCLOSURE CITATION PTO-1449		ATTY. DOCKET NO. 20434-736	SERIAL NO. 09/719,591
		APPLICANT Islam	
		FILING DATE 12/12/00	GROUP Not Assigned

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
W	WO 98/20587	5/14/98	PCT	H01S	3/30	X	
JR	0 903 876 A1	3/24/99	Europe	H04B	10/17	X	
B	0 936 761 A1	8/18/99	Europe	H04B	10/18	✓	□

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

✓	Marhic, M.E. et al., "Cancellation of Stimulated-Raman-Scattering Cross Talk in Wavelength-Division-Multiplexed Optical Communication Systems by Series or Parallel Techniques", OPTICAL SOCIETY OF AMERICA, 1998, Vol. 15, No. 3, pp. 958-963
✓	Hansen, P.B. et al., "Rayleigh Scattering Limitations in Distributed Raman Pre-Amplifiers", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 10, No. 1, January 1998, pp. 159-161
✓	Ikeda, M., "Stimulated Raman Amplification Characteristics in Long Span Single-Mode Silica Fibers", OPTICS COMMUNICATIONS, Vol. 39, No. 3, 1981, pp. 148-152
✓	Solbach, K. et al., "Performance Degradation Due to Stimulated Raman Scattering in Wavelength-Division-Multiplexed Optical-Fibre Systems", ELECTRONICS LETTERS, Vol. 19, No. 6, August 4, 1983, pp. 641-643
✓	Grandpierre, A.G. et al., "Theory of Stimulated Raman Scattering Cancellation in Wavelength-Division-Multiplexed Systems via Spectral Inversion", IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 11, No. 10, October 1999, pp. 1271-1273
✓	Chinn, S.R. "Analysis of Counter-Pumped Small-Signal Fibre Raman Amplifiers", ELECTRONICS LETTERS, Vol. 33, No. 7, March 27, 1997, pp. 607-608
✓	Stolen, R.H. et al., "Raman Gain in Glass Optical Waveguides", APPL. PHYS. LETT. Vol. 22, No. 6, March 15, 1973, pp. 276-278
✓	Stolen, R.H. et al., "Development of the Stimulated Raman Spectrum in Single-Mode Silica Fibers", OPTICAL SOCIETY OF AMERICA, Vol. 1, No. 4, August 1984, pp. 662-667
✓	Nissov, M. et al., "100 Gb/s (10x10Gb/s) WDM Transmission Over 7200 km Using Distributed Raman Amplification", CENTER FOR BROADBAND TELECOMMUNICATIONS, pp. 9-12
✓	Takahashi, N. et al., "32x10 Gb/s Distributed Raman Amplification Transmission with 50-GHz Channel Spacing in the Zero-Dispersion Region over 640km of 1.55-μm Dispersion-shifted Fiber", NTT LABS

EXAMINER DEANDRA M. HUGHES	DATE CONSIDERED Aug 2, 2004
----------------------------	-----------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

PTO-1449 Information Disclosure Citation In an Application				Application No. 09/719,591	Applicant(s) Mohammed N. Islam et al.	
JUL 12 2002 Filing Date June 16, 1999				Patent Number 09/704.0163	Group Art Unit	Filing Date
U.S. PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	4,616,898	10/14/1987	Hicks, Jr.	350	96.15	09/28/1983
B	4,699,452	10/13/1987	Mollenauer et al.	350	96.16	10/28/1985
C	4,932,739	06/12/1990	Islam	350	96.15	09/25/1989
D	4,995,690	02/26/1991	Islam	350	96.15	04/24/1989
E	5,020,050	05/28/1991	Islam	370	4	10/13/1989
F	5,078,464	01/07/1992	Islam	385	122	11/07/1990
G	5,101,456	03/31/1992	Islam	385	27	11/07/1990
H	5,115,488	05/19/1992	Islam et al.	385	129	05/10/1991
I	5,224,194	06/29/1993	Islam	385	122	04/02/1991
J	5,369,519	11/29/1994	Islam	359	173	02/05/1993
K	5,485,536	01/16/1996	Islam	385	31	10/13/1994
L	5,559,920	09/24/1996	Chraplyvy et al.	385	123	03/01/1995
M	5,629,795	05/13/1997	Suzuki et al.	359	337	08/31/1995
N	5,664,036	09/02/1997	Islam	385	31	10/12/1995
O	5,778,014	07/07/1998	Islam	372	6	12/23/1996
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
P	0 421 675 A2	10.04.1991	EP	H04B	10/16	X
Q	0 9 197452 A	31.07.1997	JP	G02F	1/35	X
R	98/42088 A1	24.09.1998	WO	H04B	10/17	X
S	0 903 877 A2	24.03.1999	EP	H04B	10/18	X
T	99/66607 A2	23.12.1999	WO	H01S		X
U	00/49721 A2	24.08.2000	WO	H04B		X
V	1 054 489 A2	22.11.2000	EP	H01S	3/067	X
DOCUMENT (Including Author, Title, Source, and Pertinent Pages)						DATE
W	Hansen et al.; "Loss compensation in dispersion compensating fiber modules by Raman amplification," Optical Fiber Conference OFC '98, paper TUD1, Technical Digest, San Jose, CA, pp. 20-21					02/1998
X	Lee et al., "Bidirectional transmission of 40 Gbit/s WDM signal over 100km dispersion shifted fibre," Electronics Letters, Vol. 34, No. 3, pp. 294-295					02/05/1998
Y	Okuno et al., "Generation of Ultra-Broad-Band Supercontinuum by Dispersion-Flattened and Decreasing Fiber," IEEE Photonics Technology Letters, Vol. 10, No. 1, pp. 72-74					01/1998
Z	Rothwell et al., "Distributed Raman Amplifiers for Long Haul Transmission systems," LEOS, pp. 251-252					12/1998
AA	Grubb et al., "Detailed analysis of Raman amplifiers for long-haul transmission," OEC Technical Digest, pp. 30-31					1998
BB	Kawai et al., "Ultrawide, 75-nm 3-dB gain-band optical amplifier utilizing erbium-doped fluoride fiber and Raman fiber," OFC Technical Digest, pp. 32-34					1998
CC	Emori et al., "Less than 4.7 dB Noise Figure Broadband In-line EDFA with a Raman Amplified-1300 ps/nm DCF Pumped by Multi-channel WDM Laser Diodes," USA Conference, paper PD3-1-5, Vail, CO					07/1998
DD	Becker et al., "Erbium-Doped Fiber Amplifiers Fundamentals and Technology," Academic Press, pp. 55-60					1999
EE	Yun et al., "Dynamic Erbium-Doped Fiber Amplifier Based on Active Gain Flattening with Fiber Acoustooptic Tunable Filters," IEEE Photonics Technology Letters, Vol. 11, No. 10, pp. 1229-1231					10/1999
FF	Nisssov et al., "Rayleigh crosstalk in long cascades of distributed unsaturated Raman amplifiers," Electronics Letters, Vol. 35, No. 12, pp. 997-998					06/10/1999
GG	Mikkelsen et al., "160 Gb/s TDM Transmission Systems," ECOC, 4 pages					2000
EXAMINER <i>DEANDREA M. HUGHES</i>			DATE CONSIDERED <i>Aug 2, 2004</i>			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						
U.S. PATENT AND TRADEMARK OFFICE						

PTO-1449 Information Disclosure Citation In an Application		Application No. 09/719,591	Applicant(s) Mohammed N. Islam et al.			
		Docket Number 069204.0163	Group Art Unit	Filing Date June 16, 1999		
U.S. PATENT DOCUMENTS						
	DOCUMENT NO.	NAME	CLASS	SUBCLASS	FILING DATE	
A	5,790,300	Zediker et al.	359	334	10/15/1996	
B	5,796,909	Islam	385	147	02/14/1996	
C	5,815,518	Reed et al.	372	6	06/06/1997	
D	5,905,838	Judy et al.	385	123	02/18/1998	
E	5,959,750	Eskildsen et al.	359	134	06/06/1996	
F	5,978,130	Fee et al.	359	341	09/16/1997	
G	6,008,933	Grubb et al.	359	341	08/19/1997	
H	6,043,927	Islam	359	Technology Center 2600	332	
I	6,052,393	Islam	372	6	07/07/1998	
J	6,081,366	Kidorf et al.	359	341	08/28/1997	
K	6,088,152	Berger et al.	359	334	03/08/1999	
L	6,101,024	Islam et al.	359	334	03/24/1998	
M	6,151,160	Ma et al.	359	341	10/05/1998	
N	6,163,636	Stentz et al.	385	24	01/19/1999	
O	6,181,464 B1	Kidorf et al.	359	334	12/01/1998	
P	6,191,854 B1	Grasso et al.	359	124	07/15/1996	
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
Q						
R						
DOCUMENT (Including Author, Title, Source, and Pertinent Pages)						DATE
S	Nielsen et al., "3.28 Tb/s (82x40 Gb/s) transmission over 3 x 100 km nonzero-dispersion fiber using dual C- and L-band hybrid Raman/Erbium-doped inline amplifiers," OFCC 2000, pp. 1229-1231					03/7-10/2000
T	Pending Patent Application; USSN 09/811,067, entitled "Method and System for Reducing Degredation of Optical Signal to Noise Ratio"					Filed 03/16/2001
U	Pending Patent Application; USSN 09/811,103; entitled "System and Method for Wide Band Raman Amplification"					Filed 03/16/2001
V	Pending Patent Application; USSN 09/16,454; entitled "System and Method for Controlling Noise Figure"					Filed 07/27/2001
W	Pending Provisional Patent Application; USSN 60/310,147; entitled "Combined Laser Diode Raman Pumps; Active Gain Equalizers; Bi-Directional Raman Amplifiers"					Filed 05/00/2002
X	Pending Patent Application; USSN 10/100,588; entitled "Electro-Absorption Based Modulation"					Filed 03/15/2002
Y	Pending Patent Application, USSN 09/768,367, entitled "All Band Amplifier"					Filed 01/22/2001
Z	Pending Patent Application; USSN 09/766,489; entitled "Nonlinear Polarization Amplifiers in Nonzero Dispersion Shifted Fiber"					Filed 01/19/2001
AA	Pending Patent Application; USSN 09/800,085; entitled "Dispersion Compensating Nonlinear Polarization Amplifier"					Filed 03/05/2001
BB	Pending Patent Application; USSN 09/760,201; entitled "Low-Noise Distributed Raman Amplifier Using Bi-Directional Pumping Using Multiple Raman Orders"					Filed 01/12/2001
CC	Pending Patent Application; USSN 09/765,972; entitled "S+ Band Nonlinear Polarization Amplifiers"					Filed 01/19/2001
EXAMINER <i>DeAndrea M. HUGHES</i>		DATE CONSIDERED <i>Aug 2, 2004</i>				
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						
U.S. PATENT AND TRADEMARK OFFICE						

PTO-1449

Application No.

Applicant(s)

09/719,591

Mohammed N. Islam et al.

**Information Disclosure Citation
In an Application**
Serial Number
09/9204.0163

Group Art Unit

Filing Date
June 16, 1999**PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	6,191,877 B1	02/20/2001	Chraplyvy et al.	359	124	07/15/1996
B	6,236,496 B1	05/22/2001	Yamada et al.	359	341	12/10/1997
C	6,239,902 B1	05/29/2001	Islam et al.	359	334	05/05/2000
D	6,239,903 B1	05/29/2001	Islam et al.	359	337	04/25/2000
E	6,310,716 B1	10/30/2001	Evans et al.	359	334	08/18/2000
F	6,335,820 B1	01/01/2002	Islam	359	334	12/23/1999
G	6,356,384 B1	03/12/2002	Islam	359	334	04/11/2000
H	6,359,725 B1	03/19/2002	Islam	359	334	12/23/1999
I	6,370,164 B1	04/09/2002	Islam	372	6	04/17/2000
J	6,374,006 B1	04/16/2002	Islam et al.	385	15	03/19/1999
K	6,381,391 B1	04/30/2002	Islam et al.	385	123	12/03/1999

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
L						
M						

DOCUMENT (Including Author, Title, Source, and Pertinent Pages)**DATE**

N	Pending Patent Application; USSN 10/003,199; entitled "Broadband Amplifier and Communication System"	Filed 10/30/2001
O	Pending Patent Application; USSN 10/007,643; entitled "Multi-Stage Optical Amplifier and Broadband Communication System"	Filed 10/30/2001
P	Pending Patent Application; USSN 10/014,839; entitled "Multi-Stage Optical Amplifier and Broadband Communication System"	Filed 12/10/2001
Q	Pending Patent Application; USSN 09/990,142; entitled "Broadband Amplifier and Communication System"	Filed 11/20/2001
R	Pending Patent Application; USSN 10/100,591; entitled "System and Method for Managing System Margin"	Filed 03/15/2002
S	Pending Patent Application; USSN 10/100,587; entitled "Fiber Optic Transmission System with Low Cost Transmitter Compensation"	Filed 03/15/2002
T	Pending Patent Application; USSN 10/116,487; entitled "Fiber Optic Transmission System for a Metropolitan Area Network"	Filed 04/03/2002
U	Pending Patent Application; USSN 10/100,589; entitled "System and Method for Dispersion Compensation in an Optical Communication System"	Filed 03/15/2002
V	Pending Patent Application; USSN 10/100,700; entitled "Rack System for an End Terminal in an Optical Communication Network"	Filed 03/15/2002
W		
X		
Y		
Z		
AA		
BB		
CC		
DD		
EE		
FF		
GG		
HH		

RECEIVED

JUL 17 2002

Technology Center 2600

EXAMINER

DEANDRA M. HUGHES

DATE CONSIDERED

Aug 2, 2004

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE